Therapeutic Perspective

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SUMMARY

Unless proper perspective is maintained in medical therapeutics, a physician in his earnest desire to cure disease may often use measures which may ultimately cause more damage than the disease being treated.

In order to avoid loss of perspective, it is necessary to balance the known consequences of the disease against the expected benefits of the treatment minus the known hazards of the treatment.

"Perspective: A view including distance as well as foreground, hence, a far-reaching mental view, in which things appear in proper relation to each other."

IN medical therapeutics, "perspective" means considering the long-term consequences of treatment as well as immediate results; and seeing things in their proper relation to each other implies that the methods used in treatment must not be more dangerous to the patient than the condition for which treatment is given. Hippocrates more than 2,300 years ago expressed the idea thus: "The ideal of the true physician is to do good, or at least to do no harm."[1]

In looking over the history of medical therapy, numerous instances may be noted in which perspective was lost, and in which the treatments employed resulted in more harm to the patient than would have been done by the untreated disease. (And this with the treatment carried out in "proper fashion." The authors are not here concerned with misuse of therapeutic measures, but consider strictly the *inherent qualities* of a given method, correctly applied.)

The purpose of this paper is to point out certain examples of loss of therapeutic perspective, and to suggest a simple formula to be kept in mind when deciding on selection of therapeutic procedures.

When certain essential facts are known, it is not difficult to maintain proper perspective. These data in general terms include:

1. Known consequences of the disease
2. Expected benefits of the treatment
3. Known hazards of the treatment

Under ideal conditions, the factors are known on a statistical basis, and decisions are made with relative ease. For example:[2]

a. Outcome of untreated syphilis—25 per cent mortality rate.

b. Expected benefits of arsenical treatment—95 per cent survival.

c. Mortality rate from adequate arsenical treatment—0.3 per cent.

Hence, net gain with arsenical treatment (25 less 5.3)—19.7 per cent.

Unfortunately, corresponding data are not available on most diseases and drugs and other agents used in treatment of them. On the other hand, in dermatology there are relatively few diseases in which the questions of death, or even serious disabling consequences, come into consideration, and for this very reason, choice of therapy must be made with the greatest of care. For example, in the treatment of plantar warts:

a. Outcome of untreated disease, in terms of serious consequences—zero.

b. Expected benefits of treatment with roentgen radiation—no better than many other potentially less dangerous treatments.

c. Known hazards of roentgen therapy in currently recommended doses — possible radiodermatitis, carcinoma (and death in some instances).

In these circumstances, roentgen treatment in dosage recommended at present is obviously to be condemned.

A few examples of apparent loss of therapeutic perspective:

1. A three-month-old baby girl had eczema of the lower abdomen and vulva, the eruption having been present six weeks. She had been treated previously by two certified dermatologists, both of whom had given x-ray treatment to the vulva and the lower abdomen.

Questions:

a. Does anyone know how much radiation at 80 to 100 kv reaches the ovaries through the abdominal wall of a three-month-old infant, and what the effects are on the ovary?

b. Is x-ray so indispensable in the treatment of eczema that risks such as this must be taken?

c. Are the *known* possible consequences of the disease as serious as the *known* possible consequences of therapy?

2. An eight-year-old girl was observed at a meeting. The diagnosis was eczema and very questionable lupus erythematosus. The latter diagnosis was so questionable that all dermatologists present, except the physician presenting the case, felt that lupus erythematosus was not to be seriously considered. Included in the treatment the patient received were

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eight weekly intramuscular injections, 5,000 units each, of theelin.

Questions:

a. Did the physician know exactly what this amount of estrogen might do to the patient in relation to growth and effect on pituitary-gonadal function?

b. Does theelin have particular proven value in lupus erythematosus?

c. Even if it had great known value, would it be justified in the face of very questionable evidence for diagnosis of lupus erythematosus?

3. For many years, so-called Vincent's infection of the gingiva was treated by many physicians with arsenobenzols, such as neoarsphenamine, given intravenously. The known mortality from Vincent's angina is zero. Many instances of hemorrhagic encephalitis and death have occurred following one to three injections of neoarsphenamine and are reported in the literature, including deaths in cases of Vincent's treated with one to three injections of neoarsphenamine. In spite of this, Vincent's gingivitis was treated with intravenous arsphenamines until penicillin became available.

4. In a case presented at a dermatological society meeting, the diagnosis was granuloma annulare. The treatment given was 50,000 units of calciferol thrice daily for several weeks.

Questions:

a. Are the possible consequences of granuloma annulare as serious as the possible consequences of large doses of calciferol?

b. Is such treatment justified, even if calciferol were a specific treatment (which it is not) for granuloma annulare?

5. A 22-year-old college girl had three circular areas of atrophy, telangiectasia, and beginning keratoses on the fingers of the right hand. Each area was sharply marginated. One measured 1 cm. in diameter, the others 0.7 cm. These were the sites of warts which had been treated with x-ray (two exposures to each lesion) by a certified specialist two years previously. There is no reason to doubt that the treatment was carried out properly as defined in modern textbooks, and it is of interest to note that no area was greater than 1 cm. in diameter. There seems little doubt that the consequences of treatment in this case were more dangerous to the patient than the disease for which she received treatment. (The authors' records of the last three years contain seven such cases, involving fingers or plantar surfaces, in all of which treatment had been given by certified radiologists and dermatologists.)

6. Radiation therapy of strawberry nevus over the elbow or wrist or any other radiosensitive anlage, in persons who have not reached full physical development. The amount of radiation used in treating strawberry nevus in many instances is more than enough to interfere with the development of ossification centers and to cause failure of normal development of the limb or organ. Such cases have already been reported.[3, 5] A large vascular nevus over a joint is not as serious as a non-functioning joint.

Loss of perspective is often the result of the physician's sincere and intense desire to help the patient; all physicians must frequently find themselves in such a position. The only purpose of this presentation is to respectfully urge that the idea of therapeutic perspective be kept constantly in mind.

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